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A
TREATISE
ON THE
HUMAN TEETH,
CONCISELY EXPLAINING THEIR STRUCTURE,
AND CAUSE OF
DISEASE AND DECAY:

To which is added,

THE MOST BENEFICIAL AND EFFECTUAL METHOD OF
TREATING ALL DISORDERS INCIDENTAL TO THE
TEETH AND GUMS; WITH DIRECTIONS FOR
THEIR JUDICIOUS EXTRACTION, AND
PROPER MODE OF PRESERVATION:
INTERSPERSED WITH OBSERVATIONS INTERESTING TO, AND
WORTHY THE ATTENTION OF EVERY INDIVIDUAL.

By R. C. SKINNER,
Surgeon Dentist.

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FOR THE AUTHOR.

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“ *A Treatise on the Human Teeth, Concisely explaining their
structure, and cause of Disease and Decay: To which is added,
The most beneficial and effectual method of treating all disorders inci-
dental to the Teeth and Gums; with directions for their judicious ex-
traction, and proper mode of preservation; Interspersed with observa-
tions interesting to, and worthy the attention of every individual.*

By R. C. SKINNER, Surgeon Dentist.”

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P R E F A C E.

*W*HATEVER are the merits or defects of this little production, the importance of the subject treated of, as respects every individual, it is presumed, will not be denied. The author has endeavoured to combine perspicuity with utility, concisely explaining the causes of disease and decay of the human teeth, their remedies, and only sure and certain method of preservation, &c. &c. The eminent writers on these interesting subjects, are too voluminous and expensive to obtain general circulation: the humble efforts of the Author of this little tract, obviates that difficulty. It is put into the hands of the public, for the inconsiderable sum of thirty cents.

ADVERTISEMENT TO THE PUBLIC.

THE humble parent of this little infant, claims no exclusive merit for the knowledge he wishes to communicate ; ardently desirous of rendering some service to Society, and uninfluenced by expectations of remuneration, he ushers it into the world with a full conviction of the importance of the subject, and humbly hopes the mantle of charity will be thrown over its defects, and that the subject treated of, will both merit and receive the attention of all classes of people. *As experience, (the unerring touchstone of truth,) daily demonstrates the fatal effects of negligence.*

THE AUTHOR.

A
TREATISE
ON THE
HUMAN TEETH, &c.

IT is an incontrovertible truth, that a clean, regular, sound set of teeth contribute greatly to the beauty of the human physiognomy ; that they are indispensibly necessary to the preservation of a clear and distinct articulation, and formed by Nature for masticating and preparing the food for digestion ; the preservation of them is, therefore, unquestionably of consequence, and worthy the attention of every human being.

Teeth are furnished us by nature for the necessary purpose of cutting or grinding the food, and giving a more clear and powerful articulation to the voice. I shall briefly describe their structure, number, order of arrangement, time they begin to appear, diseases and decay, remedies, proper mode of extraction and preservation, &c. &c.

Of the Structure of the Teeth.

The human teeth may justly be distinguished by three parts, viz. The body or crown, the neck, and the root, consisting of three different substances ; the body is covered with a pearl white vitreous substance, commonly called the enamel, which upon the anterior and posterior surface is about the thickness of an English shilling, encreasing considerably towards the end of the

crown ; this substance from its extreme hardness, is peculiarly calculated to preserve the internal parts, and to resist the impression of hard substances, and while the gums are in a sound state of health, covers the whole of that part of the teeth that appears out of them.—Very great care should be taken to preserve this outer coat or enamel ; for when once destroyed, the tooth is exposed to the impressions of heat and cold, and will be acted upon by *acidities*, which are peculiarly injurious, as they never fail to complete the work of destruction in a very short time. The second substance is near the texture and colour of all human bones, it is formed immediately under the enamel in the body of the tooth, and includes the neck and root. The third consists of the internal part commonly called the bulb, or pulp, which is much softer than either of the other substances, and is extremely susceptible, for when touched by an instrument, or affected by acids communicates a thrilling painful sensation to the nerve or chord of the tooth, which, if exposed by a caries of the enamel and bony part, soon produces excruciating pain.—The necks of the teeth are covered by the gums adhering or growing to them, which effectually prevents saline particles and other injurious substances from entering the alveoli or sockets.—The root is a continuation of the same substance and colour as the neck, at the extremity of which, is formed a small hole, enlarging as it proceeds towards the crown or body of the tooth, and filled with an artery, a vein, and nervous filament, which communicates to the bulb ; the root and socket is both covered with a periosteum or membrane that is vascular, and is attached to the gum, where it covers the alveoli.

The human teeth are distinguished by the following names, viz. the incisores, canini, molares, and sapientæ. The incisores (derived from incisor, to cut) consist of the four front teeth in each maxillary or jaw, and have but one root.—The canini consist of four in

number, and are situated each side next the incisores, and between them and the molares in both jaws, they have likewise but one root, and are called canini from their great resemblance to dog's teeth : the canini in the maxillary superior are commonly called eye teeth, from an ancient supposition that there was a connection between them and the eyes, and that by drawing them the eye sight would be endangered, which is an erroneous idea; for daily experience evidently demonstrates that such a connection, producing such effects, is merely imaginary.

The molares or grinders, are situated immediately behind, or upon the right and left of the canini in each jaw, and when nature furnishes the full complement, are twenty in number, including the sapientæ—The fourth and fifth tooth from the symphysis of the jaw, or two first behind the canini, resemble each other very nearly; the first has generally the smallest crown or body, and longest root; indeed this tooth sometimes has two roots, particularly those situated in the upper jaw, but this does not always happen; sometimes it has the appearance of two roots joined together, almost separated by a kind of channel, which appears through the extent of the fang, and perceptibly marks out the division.—All the teeth hithertomentioned often have their points bent, particularly the canini. The large grinders in the maxillary superior, or upper jaw, have two, three, and sometimes four roots; generally separated from each other, and often extending or spreading greatly, so that the diameter from the point of one root to the other, exceed by one third the diameter of the crown; and from hence too frequently arises the misfortune of fractured jaws, broken teeth, &c. &c. by unskilful operators, ignorant of the *anatomy* of the parts: accustomed to the use of the common turnkey only, and the *pernicious murderous practice of turning the tooth out*; which, nine times out of ten, must either break the tooth or produce a fracture, and exfoliation

of the jaw ; indeed happy, extremely happy is the patient in such hands, if three or four sound teeth are not brought away in the operation.—The large grinders in the maxillary inferior, or under jaw, generally have but two roots, cases have occurred of three : however, it seldom happens ; sometimes the points of their roots take an undulating form, and some are bent one against another ; in the latter case the points of the roots form, as it were, a pair of pincers, which renders it extremely difficult to extract them without either breaking their points or bringing away the bony substance that separates one cell from the other.—Each root (as before observed) has a small hole on its extremity, which receives a nerve and blood vessels, which by their connection, form what is vulgarly called the chord, or marrow of the tooth, which passes through the cavity of the root, and conveys nourishment to the tooth.

Having gone through a short, but general description of the teeth, as they are usually found when complete in adults, I shall next proceed to describe their generation, state of embryo, and time of appearing.

With admiration and astonishment we behold the works of the *Omnipotent Creator* in the formation of every thing terrestrial ; in no part of *his* wondrous works is this observation more strikingly exemplified, than in the formation of the teeth. *Nature* here appears to have deviated from *her* established laws in the production of all other bodies, and to have selected a singular method in the generation of the teeth ; the principal part of her productions originate in their roots ; on the contrary, the body of a tooth is always first formed before there is the least appearance of a root : and what is perhaps still more surprising, *the outside of the body*, which is the enamel, is formed likewise before the root ; this substance when in a state of embryo, is a soft mucous matter, resembling paste in consistence, which from the encreasing age of an infant, forms upon the body of the teeth, and gradually acquires a hardness that far

exceeds all other bony substances. When this mucous matter has formed itself into a vitreous consistence, the root of the tooth begins immediately to ossify, and is soon completely formed ; it now cuts the membrane that encloses it, and the one that covers the socket, and soon after the gum : the teeth then begin to appear as we behold them white and beautiful.

Of the Eruption of the Teeth.

Children at their entrance into this world have generally no teeth : cases have occurred, however, where two, three, or four of the incisores have been found, but this very seldom happens. The usual period for the first appearance of the teeth of infants is in the fifth, sixth or eight month after their birth ; the two small incisores in the maxillary inferior first make their appearance, the large incisores of the maxillary superior following them nearly at the same time ; in a few weeks they are followed by two others by the side of the first in the under jaw, and shortly after the other two in the upper jaw.—When the child is eleven or twelve months old the lower canini appear, and in a few days after the upper canini likewise ; the latter generally producing in their eruption much greater pain than the former.—When children are about eighteen or twenty months old, the two small molares in the under jaw make their appearance, and shortly after the other two in the upper jaw : about the age of two years the other four small molares appear, one at each side of their predecessors ; these constitute what is called the milk teeth ; no more appearing until about the sixth year.—This arrangement, however, is not always exact, for we sometimes see the small molares shoot forth before the canini. At about the age of six years, four other molares appear adjoining those preceding them ; between the eleventh and twelfth year four more molares likewise appear, and in the seventeenth or eighteenth year four others ; the whole number making

twenty-eight : viz. eight incisores or front teeth, four canini or eye teeth, and sixteen molares or grinders : with these teeth we continue until between the age of twenty-two and twenty-eight in males, and nineteen and twenty-four in females : when the four dentes sapientæ, or wisdom teeth usually appear ; which frequently occasion excessive pain in their eruption, produced by the want of room in the jaws, and their pressing upon the coronoide process ; this must be borne a considerable time, or the tooth extracted to obtain ease. At the seventh or eight year the first incisores begin to shed, the canini and molares soon following them in the order they first appeared ; others much more beautiful succeeding them. At this period the assistance of *art* is frequently, and I may add indispensably necessary, for if the new teeth are suffered to come out irregularly, to crowd or ride upon each other, a great deformity appears, a *decay* inevitably soon follows ; and a total destruction of the teeth is the consequence. Therefore great attention should be paid to children when shedding their teeth, for if the *new teeth* are badly arranged, misplaced, or crowded, and permitted to remain so, they will assuredly injure each other, and produce the effects before mentioned : to obviate such unpleasant consequences, parents, guardians, governesses and nurses, &c. are respectfully invited carefully to examine their children or wards teeth at the time of shedding ; and when the teeth appear to be coming out across the gum, or any way irregular, immediately to call for the assistance of a skilful operator, and never to suffer *compassion* (in such cases) to preponderate the scale against that *justice* which is due from parents, &c. to their offspring ; a neglect of which is productive of such fatal consequences. Infants, when cutting their first teeth, are frequently attacked with a complication of disorders, which originate from that cause : many of the symptoms attending the diseases incident to the eruption of the first teeth, are dangerous ;

such as diarrhæa, costiveness, eruptions on the face and head, coughs, shortness of breath, convulsed respiration, spasms, &c. &c. attended with inflammation, heat, swelling of the gums, and a great increase or flow of saliva; one hour (perhaps) the child is attacked with a violent fever, and the next perfectly temperate. The effectual cure of these disorders must be directed to the seat of the disease: opiates may probably remove the irritation, but the most successful practice I pursue, is lacerating or cutting the gum down to the teeth, which effectually takes off the tension, and prevents the ulceration that must otherwise inevitably ensue. If the gum re-unites again before the teeth appear, I repeat the same treatment as often as the symptoms recur, and have never known it fail of the desired effect. Objections have been made to this mode of practice, on the ground that a cicatrized gum would be harder than antecedent to the laceration, and consequently occasion a more difficult eruption of the teeth; but this idea is contrary to established facts. I believe that all surgeons will admit that those parts of the human body that have been the seat of wounds, more readily give way to pressure, or the attacks of other diseases, than they would if such wounds had never been made.

Of the Disorders of the Teeth, and General Causes of Decay.

From an extensive theoretical knowledge of the disorders of the teeth, from many years practical experience, and from a thorough investigation of the *causes* that contribute to the destruction of the human teeth, I pronounce with confidence, that in nine cases out of ten, their loss proceeds from that parent of disease *negligence*. It is a lamentable truth that parents, &c. too frequently wholly neglect the important circumstance of attending to their childrens teeth at the time of shedding: of accustoming themselves, or habituating their offspring to the cleanly, healthy practice of

daily purifying the teeth and gums, the neglect of which is often productive of fatal, irreparable consequences. The disorders of the teeth, it is admitted, sometimes arise from internal causes; such as scurvey, scrophula, *fashionable disease*, or whatever produces a cachexy of the humours; all disorders in the gums injure and affect the teeth, and generally occasion tedious, painful sufferings. The external shocks given to the teeth, are the extremes of heat and cold; exhalations from the stomach that form a noxious slimy substance upon the teeth and gums; particles of food that are suffered to collect and remain upon, and between the teeth; caustics, and hot stimulating applications to ease pain; foot, vitriols, aqua fortis, mineral acids, introduced in tooth powders, and otherwise; the excessive use of sugar; the pernicious, dangerous practice of carrying pins in the mouth, and using them as a tooth pick; various hard and gritty substances, improperly made use of to cleanse the teeth; and above all *mercury* is the great destroyer of the human teeth. From hence it will be seen how important it is to avoid the destructive effects of such substances; and that every individual should acquire the habit of cleansing the teeth daily with a tooth brush and pure water. It is an established principle from time immemorial, amongst the ancients, as well as moderns, *that cleanliness contributes to health*. If this theory is admitted (which it is presumed no person will deny) it incontestibly proves that its application to the teeth and gums as constituent parts of the body, is as necessary, as to the face, hands, feet, or trunk.

Of the Caries, or Decay of the Teeth.

It sometimes happens that the teeth scarcely make their appearance before they are attacked with a caries or decay; consequently require the assistance of art. From the extreme hardness of the external parts of the teeth, it might be imagined they were less suscep-

tible of decay ; but, on the contrary, they are more liable to it than bones of any other description. The enamel of the teeth is nearly allied to inanimate matter : The texture is extremely close, and there is consequently a greater compression of the vessels. Obstructions therefore, are more easily occasioned. If the juices of the teeth are vitiated, they must be liable to contamination, proportionably to the impressions they receive.

Caries may arise, as before observed, from either internal or external causes ; they may be divided into soft and dry : The former is rapidly destructive, and affects the root, and oftentimes the bulb, or internal part of the body. A caries of this description is more difficult to be ascertained and cured, than when it proceeds from external causes ; for when it attacks the neck or root of the tooth it cannot be easily discovered, for the former is usually covered with the gum, and the latter lies buried in the socket ; to obtain permanent ease in this case, it is absolutely necessary to extract the tooth. Dry caries generally proceed from external causes, and are perceptible to the eye or touch of instruments ; and by early and judicious treatment, may be effectually removed, the painful operation of extracting obviated, and the tooth preserved (oftentimes) during life. But on the contrary, if no effort is made to put a stop to the decay, it soon penetrates to the nerve and blood vessels, and creates excruciating pain : Extraction of the tooth must then follow, or the actual or potential cautery's applied ; the former is preferable, as the latter can seldom be applied without injuring the adjoining teeth. In all cases where a decay is perceptible, the rotten part should be thoroughly and judiciously removed, and the cavity perfectly and solidly filled with gold, silver or lead foil, prepared for that purpose. If the decay has penetrated to the nerve of the tooth, and pain ensues, it must nevertheless be thoroughly removed, and the nerve effectually

ally destroyed, and the cavity filled as before mentioned, or the tooth extracted; otherwise acid and saline particles will enter the hole or cavity of the tooth originally filled with the nerve or chord; wound its membranes, and probably produce an abscess in the socket and gum. This operation of removing the caries of a tooth, and filling up the cavity, is necessary in another point of view, viz. the cavity of a decayed tooth if left open, is a receptacle for the collection of particles of food, which putrify and occasion a very *fatid breath, and the contamination of the adjoining teeth*. It is an established principle in Chemistry, that where there is a collection of putrescent matter, and "free access of air, heat and moisture, a putrefactive process goes on, eventually producing the *Septic Acid*, possessing qualities nearly resembling Aqua Fortis, and which is eminently calculated to complete the work of destruction;" no situation whatever can be more convenient to receive and retain putrescent matter; and consequently none more liable to produce contaminating destructive consequences than a decayed Tooth.

Of the ALVEOLI, or Sockets.

The Alveoli or Sockets, are cavities or holes, formed by nature in the jaw bones, for the reception and firm security of the teeth; the under jaw in infancy consists of two bones, which become firmly united at the Symphysis of the chin in adults. Diseases sometimes arise in the sockets when the teeth are perfectly sound: these proceed either from a constitutional cause, or a natural effect taking place prematurely. The former may be removed by proper corrective prescriptions, frequent scarifying, or bleeding the gums, and externally applying antiscorbutic and astringent medicines. The latter is seldom, perhaps never cured. It generally occasions a total loss of the teeth contiguous to the diseased

part. This disease begins by a wasting of the Alveolar processes at the edge of the socket, which gradually proceeds to the bottom ; the gum loses its connection with the alveolar process and neck of the tooth, assumes a livid appearance, and continually discharges Pus from the diseased surfaces ; the teeth affected at length become extremely loose, and at last drop out.

Of the scurvy in the Gums, commonly so called.

The similarity of this disease to the real scurvy has probably occasioned it to be designated by that appellation. The causes that produce this disease are generally external. Notwithstanding, the effects often appear very similar to those last described ; particularly when the disease is of a long standing. The principal cause of the vast, incalculable havoc made by this disorder is *negligence*, in cleaning the teeth and gums. Every person living, unquestionably possesses the power of avoiding its baneful effects. The gums, when affected with this disease, appear of a livid colour, lose their firmness and adhesion to the neck of the teeth ; are very tender, and apt to bleed upon the slightest touch. This proceeds from a compression of the tartar, which has been suffered to collect and form upon the necks of the teeth ; and a local plethora. The tartar must therefore be judiciously and thoroughly removed, the gums scarified or bled freely, and proper antiscorbutic and astringent medicines applied, to expel the vitiated humours. If application is early made for relief, this disease may easily be cured ; even after the teeth are partially loosened by it. But, on the contrary, if neglected, a total loss of the teeth is the inevitable consequence. *For the effects will never cease until the cause is removed.*

Of Abscesses in the Sockets or Gums.

An abscess in the sockets or gums, originates from a hollow or decayed tooth ; the cavity of the Fang, or root being open and exposed to the influence of air, and the reception of acrid and saline particles of food &c. which irritates and inflames the periosteum and tender parts of the socket—forms a pulpy substance, which adheres very firmly to the point of the root—frequently produces violent pain ; and at length suppurates and discharges a quantity of pus. This disease is particularly dangerous, when it attacks the sockets of the lower jaw : for if pus once forms, it must either be discharged, or taken into the mass again by absorption. Nature generally makes an effort to throw it off ; and if she is unequal to the task one way, she will assuredly effect it another. Fluids cannot act contrary to their gravity ; they will descend. Pus being a fluid, and pent up in a socket of the lower jaw, must and will make its way out. It cannot ascend to the surface or edge of the gum ; it must therefore take another direction ; and without early professional assistance, penetrates the alveoli, gum, and integuments of the face ; perforates the cheek, and leaves a wound and hole on the outside of the face ; from whence flows a watery ichor that continues until the cause is removed : which, if not speedily effected by extracting the tooth, it will become destructive to the contiguous bony substance ; and oftentimes to the adjoining teeth and gums. An abscess in the sockets of the upper jaw, is very rarely attended with the unpleasant consequences the lower jaw is subject to. The pus, when formed there, generally discharges either from the edge of the gum, or through the socket and gum, in the direction of the point of the root ; and from the immutable principle beforementioned, can seldom or never produce the effects so often experienced from an abscess in the under jaw.

Of the Tartar and Septic Acid.

The Tartar consists of three different species, viz. the yellow, the black, and the green. The two former are nearly similar in their consistence and effects: the latter is chemically denominated the septic acid. The tartar is generated from particles of the aliments, viscid exhalations from the stomach, and a soft mucous matter formed from a combination of the food and saliva; these substances collecting and remaining on the teeth, soon produce putrescence. This putrescent matter, (like every thing terrestrial) soon undergoes a change. The animal fluids, collecting in cavities, stagnate and deposit an absorbent earth; and thus form stony concretions. The juices of the mouth, and the substances beforementioned, are peculiarly calculated to produce this adventitious concretions upon the teeth. This stony matter generally begins to form upon the necks of the teeth, near the gum, a situation infinitely more liable to produce mischievous effects, than any other external part of the tooth. The enamel, near the neck of the teeth, is extremely thin, and easily acted upon by the pernicious effects of this destructive substance. The gums likewise, now suffer from the baneful effects of the tartar, which is continually accumulating, and which soon destroys their firmness and adhesion to the neck of the teeth. The gums now diseased, exhibit a rough edge, of a livid colour; and soon after swellings, excrescences and ulcers; continually discharging pus; which at this stage of the disease, ceases only with the total expulsion of the teeth contiguous to the parts affected. The green tartar (or septic acid,) is materially different from the yellow and black, both in its appearance and effects upon the teeth: this substance never forms a concretion. It first appears like a green stain upon that part of the teeth next the gum, where the enamel is very thin, gradually encreasing (unless checked by

art) until it nearly covers the anterior part of the incisores, canini and small molares of the maxillary superior. The collection of this substance upon the large molares is partial in proportion to what is frequently found upon the teeth before mentioned. However, cases have occurred, where I have found the bodies of all the teeth entirely covered with it, (except on the cutting or grinding surfaces) which gave them a colour as black as foot. This species of the tartar seldom affects the gums; but it is more rapidly destructive to the enamel of the teeth than the former. The corrosive qualities of this pernicious substance, cannot (it is presumed) be more fully and satisfactorily explained, than by the following extract of a letter written by the celebrated Dr. Samuel L. Mitchel, Professor of Chemistry, Natural History and Agriculture, in the College of Columbia, to the Author, on that subject:—

“From a variety of considerations, I have been led to believe, that acids are the great enemies of the human teeth; and that of these, the septic acid, or that acid which peculiarly characterizes the decay of the organic forms of plants and animals, or their parts, is the most common and most pernicious. It seems to be manufactured about the teeth and gums of such persons as suffer the remains of food to collect and corrupt thereabout, and to constitute the *green tartar* you mention, destroying the calcareous enamel at a rapid rate. Without due attention to their mouths by people themselves, or aid seasonably sought from a skilful Dentist, (you know) the teeth and gums of human creatures become as nasty and abominable receptacles, as almost any thing vile you can name. The remains of bread and meat putrefy there, after the same manner that they would in any other place where there was free access of *air, heat and moisture*. This putrefactive process among the inanimate remains of what has been chewed, and is left adhering to the teeth, produces the same acids that result from putrefac-

tion in other dirty places, among the remains of animal and vegetable matter. And the *one* which is eminently calculated to carry on the work of destruction is the *septic acid*, generated in the mouth, and possessing qualities nearly resembling aqua fortis." Hence it will be seen, from the corroborating opinion of the eminent and very respectable authority before mentioned, how vastly important it is, that persons of all ages should daily cleanse their teeth; and that children should be habituated in early life to a practice so conducive to their future *comfort, ease and happiness*.

Directions for extracting Teeth, &c.

The sufferings of unfortunate victims to vulgar operators, ignorant of anatomy, have been many and great. Scarcely a day passes, even in this enlightened metropolis, without furnishing a melancholy memento of it. An erroneous idea, too frequently prevails, that any person can extract a tooth: from hence proceed broken teeth, fractured jaws, exfoliations, dangerous hæmorrhages, deep seated abscesses, and sometimes* locked jaws: the latter is the sure, the certain harbinger of speedy death. The cause of suffering humanity, surely then will prompt judicious, reflecting minds to scout an idea so palpably erroneous. The operation of extracting a tooth, is certainly in many cases, a very delicate one: in others, few operations are more difficult. To perform this, or any other operation with ease, safety or success, it is indispensably necessary, the operator should have a perfect knowledge of the anatomy of the parts. A *Smith* might as well attempt to construct a periwig, or a *Barber* attempt to build a ship, as either to extract a tooth with ease, safety or success. It therefore cannot be surprising if we continue to see or

* An instance occurred last summer, in this city, of the death of a person from a fractured jaw, occasioned by an ignorant operator.

hear of such misfortunes, as long as either credulity or parsimony induce people to apply to the ignorant and uninformed.

The various construction and situation of the teeth, require instruments of various forms, applicable to their construction and situation. The judicious experienced operator, is abundantly supplied with these; and when a case occurs, that requires his professional assistance, he knows how to select and apply such as are adapted to the case, advantageously. On the contrary, the uninformed, *would-be-operator*, seldom possesses, or knows the use of any other instrument than a common turnkey; which he applies in all cases; and with his herculean strength, *murderously turns out*, either some part of the tooth, or a large piece of the jaw bone, and too frequently two or three sound teeth. A tooth ought invariably to be drawn in the direction of its own axis; or, in other words, in a straight direction from its natural situation, which gives but little pain, and obviates accidents. A tooth stands in the jaw something similar to a wooden wedge drove firmly into a stick of wood, which, by removing in any other direction than straight forward, will inevitably, either break the wedge and leave the point within the stick, or split out one side or the other of it: but by removing the wedge in a straight direction, avoids both one and the other; and so vice versa the teeth. In extracting a tooth, the operator should always first thoroughly separate the gum from the tooth with a gum lancet. The selection of the extracting instrument must depend entirely on the judgment of the operator: it ought always to be adapted to the *construction, size and situation* of the tooth that is to be extracted. In all cases, however, a tooth ought to be drawn straight forward; and never on any consideration whatever, should it be drawn laterally, or *turned out*. This may be easily effected by an operator that possesses the instruments, and understands

the proper method. The extraction of a tooth should never be very sudden or quick. The patient should be placed either on a high or low seat, (as the case requires) when the instrument is applied to the tooth; and before an attempt is made to draw, the operator should feel that he has a firm, secure hold of it: satisfied of this, he must then draw steadily in a straight direction of the natural position of the tooth; and if the strength of his right arm is insufficient to effect its removal, his left must assist. When an upper molar, or grinder is to be extracted, the patient should be placed or seated very low, with the head resting upon the operators knees. If an under one is to be removed, the patient should be placed on the height of a common chair, and the head placed upon the operators breast, who should firmly and securely clasp it with his left arm. These positions effectually secure the patient from struggling, and thereby retarding or preventing the successful completion of the operation—brings both the operator's hands in front of the patients face—enables him to apply the strength of both, if necessary; and consequently to remove the tooth in the direction before mentioned, with ease, safety and success. If an incisor or canini is to be extracted, the patient must be placed in the same situation as for the removal of the molars, with the difference of reversing the positions. But a front tooth ought never to be extracted, unless an abscess is formed at the root of it. A judicious operator can always ascertain this, from circumstances and external appearances. A tooth with one fang or root, that gives pain from any other cause than an abscess, can easily be cured and rendered serviceable, oftentimes, during a persons life.

If a front tooth is extracted, it generally produces a contraction of the parts from whence it was removed; and consequently draws the mouth partly on one side. Independent of this circumstance, it would be bad practice to extract a front tooth, or stump;

because it would remove and destroy that solid base, indispensably necessary for the firm security, and masticating use of an artificial tooth, which may be set to very great advantage, where there is a solid stump standing.

Having already explained the destructive consequences resulting from suffering the food, &c. to collect and remain upon the teeth, I shall conclude by a humble and respectful request, that parents, guardians, governesses and nurses, will attentively watch the growth of their children's or wards' teeth: whenever an irregularity appears, to call immediately for professional assistance, and to habituate them to the healthy, cleanly practice of thoroughly brushing their teeth, inside and out, every morning with a toothbrush and pure water; and twice or thrice a week with an innocent dentifrice or tooth powder; a practice indispensably necessary by every human being who wishes to preserve the teeth as nature formed them, *white, sound and beautiful*.

The public are respectfully informed that the following certificates given by the hon. Samuel L. Mitchell M. D. F. R. S. E. Professor of Chemistry, Natural History and Agriculture, in Columbia College, Representative in Congress, for the city of New-York, one of the physicians of the general hospital, &c. and Dr. David Hosack, Professor of Botany and Materia Medica in the Columbia College; and Dr. James Tillary, resident Physician of the city of New-York, abundantly prove the innocency and efficacy of his dentifrice or tooth powder, and anti-scorbutic tincture for the teeth and gums.

(CERTIFICATES.)

East Rutgers Street, New-York, May 15, 1801.
 Mr. Richard C. Skinner, Surgeon Dentist in New-York, has disclosed to me his receipt for a powder

which he employs to render the teeth of those who use it, clean and white, and to preserve them from decay. I have considered the qualities of the ingredients of which this dentifrice is composed, and have satisfied myself, both by the reason of the thing, and by experiments made, that it not only possesses no noxious articles, but that it is judiciously adapted, both to remove by gentle attrition, the earthy concretions which sometimes incrust the teeth, and to destroy those corroding and pernicious acids that spoil their enamel. I therefore believe the use of Mr. Skinner's powder, will be very efficacious in saving the teeth from premature decay; and I should be glad to find it generally in use.

SAMUEL L. MITCHELL.

We concur in opinion with Dr. Mitchell, in recommending the dentifrice powder and tincture prepared by Mr. Skinner, as safe and efficacious in cleansing and preserving the teeth.

JAMES TILLARY.
DAVID HOSACK.

May 16, 1801.

The deformity occasioned by the loss of any constituent part of the human frame, is universally admitted to be very great. Many persons who have experienced such misfortunes, are either unacquainted with the power of art in imitating the *works*, and remedying the *defects* of nature: or from the peculiarity of their case, doubt the possibility of obtaining relief. No person, however, ought to despair. They are respectfully assured, that in any, and every case, where there is a deformity occasioned by the loss of any visible part of the human body; that such deformities may be remedied or covered, by substituting others equally as natural and beautiful, in appearance, and in many cases but little inferior in *use*, to the original.

During a period of near twelve years extensive practice in this city, many difficult cases have presented to me from different parts of America : some of which were deemed irremediable : not a single person has applied in vain ; the most complete success has attended every operation. Satisfactory reference may be had to many persons now resident in this city ; and many from different parts of the United States, who have received the most beneficial and unexpected relief.

Poor people afflicted with complaints in the teeth and gums, will be attended at the dispensary, Hospital, Alms-house, or at the house of the operator, No. 64, Fair Street, and relieved *gratis*. A request from any Physician or surgeon of this city, or any of the superintendants, trustees, or official visitors of either of those benevolent institutions, will be immediately attended to, and assistance given free of any expence.

Copy of Certificate given by the Board of Managers of the Dispensary of the city of New-York, to the Author :

New-York, September 2, 1792.

SIR,

The Board of Managers of the Dispensary received yours addressed to them ;—they directed me to acquaint you of the acceptance of your offers, in such cases as may be of avail to the Dispensary. It gives pleasure, Sir, to find that an institution founded upon such motives, will meet with your benevolent attention.

I am, Sir, with respect,
your obed't Servant,
WM. COCK, *Secr'y.*

Mr. Skinner Surgeon Dentist.

Many of the undermentioned operations are probably deemed impracticable, by the uninformed and doubtful; the operator, pledges himself to remove such doubts whenever they occur : either by references, actual experiments, or demonstrative proof.

Established Fees.

Viz.—For setting an artificial eye, nose, or ear,—
3 guineas each.

For setting an artificial flexible leg, perfectly to imitate nature in muscular motion—4 guineas each.

For setting a common cork leg—3 guineas.

Transplanting a tooth which grows firm in the head—3 guineas each.

Grafting, or setting human teeth, in any way on gold—4 dollars each.

Grafting, or setting human teeth on silver—3 dollars each.

Fixing and setting best artificial teeth, on gold springs or pivots—2 dolls. 50 cents.

Grafting or setting (any way) artificial teeth of second quality—2 dollars each.

Grafting or setting third quality—1 doll. 50 cents.

Do. do. fourth quality—1 dollar.

Filing, eradicating caries, (or rotten parts,) or filling cavity with silver or lead foil—50 cents each.

Filling cavity with gold—1 dollar each.

Extracting teeth abroad—1 dollar each.

For extracting teeth at his own house—50 cents each.

Do. do. children's teeth half price.

Eradicating the tartar, and cleansing the teeth, from
1 to 8 dollars each set, in proportion to their situation.

Skinner's Dentifrice and Antiscorbutic Tincture, for preserving, cleansing, and giving the teeth a beautiful whiteness, and eradicating the scurvy in the gums, constantly for sale, wholesale and retail, at his house No. 64 Fair Street, New-York, at various prices (in proportion to the size) from 2s. to half a guinea each, with the customary deduction to retailers.

R. C. Skinner embraces this opportunity of acknowledging the very great obligations he feels himself under to several medical gentlemen of this city, who have particularly honored him with their patronage: He presents them (and every other person who has either patronized or employed him) the warmest effusions of a grateful heart; a heart that will ever feel, and acknowledge (while its pulsations continue) every obligation and favor, either from individuals on the public.

The public are farther respectfully informed, that in any and every case, where part, or the whole of the teeth are decayed and lost, new ones may be substituted or set, even if there is neither tooth nor stump standing in the head, from a single tooth to a complete whole set. Even poor people may enjoy the luxury of possessing a good set of front teeth, as some are set as low as one dollar each.

New-York, June 20, 1801.

F I N I S.

